Amendments to the Claims:

None

Listing of Claims:

Claim 1 (original): A method for generating an optical model, comprising:

adjusting a lens aberration of one or more lens aberrations of an initial lens;

determining a wafer response to the adjustment;

generating lens aberration data according to the wafer response;

selecting one or more aberration functions of a plurality of aberration functions;

fitting the one or more aberration functions to the lens aberration data; and

generating an optical model in accordance to the one or more aberration functions, the optical model indicating the wafer response to the one or more lens aberrations of the initial lens.

Claim 2 (original): The method of Claim 1, wherein the plurality of aberration functions comprise a plurality of Zernike functions.

Claim 3 (original): The method of Claim 1, further comprising:

receiving a plurality of aberration content sets associated with a plurality of exposure tools, each aberration content set describing one or more lens aberrations associated with a lens of an exposure tool of the one or more exposure tools;

receiving a pattern design comprising one or more locations;

applying the optical model to the pattern design according to each aberration content set to generate response data for each aberration content set; and

determining a sensitivity of the one or more locations of the pattern design to the one or more lens aberrations associated with the plurality of exposure tools in accordance with the response data.

Claim 4 (original): The method of Claim 1, further comprising:

receiving aberration content describing one or more lens aberrations associated with a lens;

applying the optical model to a pattern design according to the aberration content to identify an error; and

performing a proximity correction for the error.

Claim 5 (original): The method of Claim 1, further comprising:

performing an estimated proximity correction for a pattern design;

receiving aberration content describing one or more lens aberrations associated with a lens of an exposure tool;

applying the optical model to the pattern design according to the aberration content to identify an error;

performing a proximity correction for the error if the error is correctable; and

identifying the error as uncorrectable otherwise.

Claim 6 (original): A system for generating an optical model, comprising:

a database operable to store lens aberration data associated with a wafer response to one or more lens aberrations of an initial lens; and

a server coupled to the database and operable to:

adjust a lens aberration of the one or more lens aberrations;

determine the wafer response to the adjustment;

generate the lens aberration data according to the wafer response;

select one or more aberration functions of a plurality of aberration functions;

fit the one or more aberration functions to the lens aberration data; and

generate an optical model in accordance to the one or more aberration functions, the optical model indicating the wafer response to the one or more lens aberrations of the initial lens.

Claim 7 (original): The system of Claim 6, wherein the plurality of aberration functions comprise a plurality of Zernike functions.

Claim 8 (original): The system of Claim 6, wherein:

the database is further operable to:

receive a plurality of aberration content sets associated with a plurality of exposure tools, each aberration content set describing one or more lens aberrations associated with a lens of an exposure tool of the one or more exposure tools;

receive a pattern design comprising one or more locations; and

the server is further operable to:

apply the optical model to the pattern design according to each aberration content set to generate response data for each aberration content set; and

determine a sensitivity of the one or more locations of the pattern design to the one or more lens aberrations associated with the plurality of exposure tools in accordance with the response data.

Claim 9 (original): The system of Claim 6, wherein:

the database is further operable to receive aberration content describing one or more lens aberrations associated with a lens; and

the server is further operable to:

apply the optical model to a pattern design according to the aberration content to identify an error; and

perform a proximity correction for the error.

Claim 10 (original): The system of Claim 6, wherein:

the database is further operable to receive aberration content describing one or more lens aberrations associated with a lens of an exposure tool; and

the server is further operable to:

perform an estimated proximity correction for a pattern design;

apply the optical model to the pattern design according to the aberration content to identify an error;

perform a proximity correction for the error if the error is correctable; and

identify the error as uncorrectable otherwise.

Claim 11 (original): Logic for generating an optical model, the logic embodied in a medium and operable to:

adjust a lens aberration of one or more lens aberrations of an initial lens;

determine a wafer response to the adjustment;

generate lens aberration data according to the wafer response;

select one or more aberration functions of a plurality of aberration functions;

fit the one or more aberration functions to the lens aberration data; and

generate an optical model in accordance to the one or more aberration functions, the optical model indicating the wafer response to the one or more lens aberrations of the initial lens.

Claim 12 (original): The logic of Claim 11, wherein the plurality of aberration functions comprise a plurality of Zernike functions.

Claim 13 (original): The logic of Claim 11, further operable to:

receive a plurality of aberration content sets associated with a plurality of exposure tools, each aberration content set describing one or more lens aberrations associated with a lens of an exposure tool of the one or more exposure tools;

receive a pattern design comprising one or more locations;

apply the optical model to the pattern design according to each aberration content set to generate response data for each aberration content set; and

determine a sensitivity of the one or more locations of the pattern design to the one or more lens aberrations associated with the plurality of exposure tools in accordance with the response data.

Claim 14 (original): The logic of Claim 11, further operable to:

receive aberration content describing one or more lens aberrations associated with a lens;

apply the optical model to a pattern design according to the aberration content to identify an error; and

perform a proximity correction for the error.

Claim 15 (original): The logic of Claim 11, further operable to:

perform an estimated proximity correction for a pattern design;

receive aberration content describing one or more lens aberrations associated with a lens of an exposure tool;

apply the optical model to the pattern design according to the aberration content to identify an error;

perform a proximity correction for the error if the error is correctable; and

identifying the error as uncorrectable otherwise.

Claim 16 (original): A system for generating an optical model, comprising:

means for adjusting a lens aberration of one or more lens aberrations of an initial lens;

means for determining a wafer response to the adjustment;

means for generating lens aberration data according to the wafer response;

means for selecting one or more aberration functions of a plurality of aberration functions;

means for fitting the one or more aberration functions to the lens aberration data; and

means for generating an optical model in accordance to the one or more aberration functions, the optical model indicating the wafer response to the one or more lens aberrations of the initial lens.

Claim 17 (original): A method for generating an optical model, comprising:

adjusting a lens aberration of one or more lens aberrations of an initial lens;

determining a wafer response to the adjustment;

generating a lens aberration data according to the wafer response;

receiving the lens aberration data associated with the wafer response to the one or more lens aberrations of the initial lens;

selecting one or more aberration functions of a plurality of aberration functions, the plurality of aberration functions comprising a plurality of Zernike functions;

fitting the one or more aberration functions to the lens aberration data;

generating an optical model in accordance to the one or more aberration functions, the optical model indicating the wafer response to the one or more lens aberrations of the initial lens;

receiving a plurality of aberration content sets associated with a plurality of exposure tools, each aberration content set describing one or more lens aberrations associated with a lens of an exposure tool of the one or more exposure tools;

receiving a first pattern design comprising one or more locations;

applying the optical model to the first pattern design according to each aberration content set to generate response data for each aberration content set; and

determining a sensitivity of the one or more locations of the first pattern design to the one or more lens aberrations associated with the plurality of exposure tools in accordance with the response data;

performing an estimated proximity correction for a second pattern design;

receiving aberration content describing one or more lens aberrations associated with a lens of an exposure tool;

applying the optical model to the second pattern design according to the aberration content to identify an error;

performing a proximity correction for the error if the error is correctable; and

identifying the error as uncorrectable otherwise.